

REMARKS

Reconsideration and allowance of the above-identified application are respectfully requested. Upon entry of this Amendment, claims 1-6 will be pending.

Applicants note with appreciation the allowance of claims 5 and 6. Applicants also note with appreciation the allowance of claim 3 now that it has been amended herein to be in independent form. New claims 7 and 8 have been added which are similar to claims 2 and 4, respectively, but depend from claim 3.

In the office action, claim 1 is rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5, 682,257, to Uchida (hereinafter referred to as "Uchida"). Claims 2 and 4 are rejected under 35 U.S.C. §103(a) as being obvious over Uchida in view of U.S. Patent No. 5, 608,720, to Biegel (hereinafter referred to as "Biegel").

Uchida discloses a first multiplex/demultiplex apparatus 31 (Fig. 6) connected by an optical transmission line 23 to second multiplex/demultiplex apparatus 32 (Fig. 7). With regard to claim 1, the office action uses the combination of these two circuits in Figs. 6 and 7 of Uchida to purportedly teach the claimed invention.

Applicants respectfully submit that claim 1 as amended herein is not taught or suggested by Uchida. Claim 1 recites digital interface means, as well as optical interface means and STS multiplexing means, operating in a common equipment device that is connected to a channel device by an optical communication link, among other distinguishing claim elements. The recited common equipment device, channel device and connecting optical communication link are exemplified, respectively, by the common equipment shelf (CES) 26 and the channel shelf (CHS) 28 in Fig. 7 of the application which are connected by optical communication loops 41 and 42. The channel shelf 28 in the application is connected to subscriber instruments 29 and, in this respect, is arguably analogous to the second multiplex/demultiplex apparatus 32

(Fig. 7) of Uchida which is connected to subscribers via DS1s. Correspondingly, the common equipment shelf 26 is connected upstream to an optical line (e.g., OC-3 signal) and, in this respect, is arguably analogous to the first multiplex/demultiplex apparatus 31 (Fig. 7) of Uchida.

The system taught in Uchida, however, does not have digital interface means in a common equipment device as claimed. The only component in Uchida that processes digital signals such as DS1s is the second multiplex/demultiplex apparatus 32 (Fig. 7), which is connected to the subscriber or channel unit side and not the upstream or common equipment side in contrast with the claimed invention. Further, as recited in claim 1, the VTG circuit means for mapping and demapping is in a common equipment device that is connected to a channel device by an optical communication link. By contrast, the only mapping device in Uchida (i.e., the VT1.5 mapping units 55 and 56) is in the second multiplex/demultiplex apparatus 32 (Fig. 7) of Uchida that is connected to subscribers.

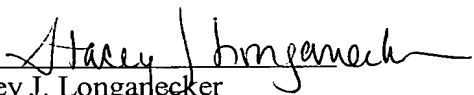
Applicants respectfully submit that the amendments to claim 1 are supported, as stated above, by Fig. 7 and corresponding general description of Fig. 7 components on pages 28-31 of the application (see also detailed description on pages 29-92 of the application). The recited digital interface means are exemplified by the DS1s connected to the QDS1/VTG MUX cards 53 in the CES 26, as shown in Fig. 7 and described at 33, lines 9-19 of the application.

Amended claim 1 is believed to be allowable and notice to that effect is respectfully requested. Further, claims 2 and 4 depend from claim 1 and are also believed to be allowable. Also, the disclosure relied on in commonly-owned Biegel is provided in the abandoned U.S. patent application Serial No. 08/031,395, filed March 9, 1993 of which both Biegel and the present application are continuation-in-part applications. Thus, Biegel is not available as a reference under 35 U.S.C. §§102(b) and 103(a).

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In view of the above, it is believed that the application, including claims 1-8, is in condition for allowance and notice to this effect is respectfully requested. Should the Examiner have any questions, the Examiner is invited to contact the undersigned at the telephone number indicated below.

Respectfully submitted,

  
Stacey J. Longarjecker  
Attorney for Applicants  
Reg. No. 33,952

Roylance, Abrams, Berdo & Goodman, L.L.P.  
1300 19<sup>th</sup> Street, N.W., Suite 600  
Washington, D.C. 20036  
(202) 659-9076

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